Foreign Patent Abstracts

File 347:JAPIO Dec 1976-2007/Jun(Updated 070926)
(c) 2007 JPO & JAPIO
File 350:Derwent WPIX 1963-2007/UD=200801
(c) 2008 The Thomson Corporation
File 371:French Patents 1961-2002/BOPI 200209
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Set Items Description
S1 2786 APNEA OR APNEIC OR APNOEA OR APNEIN OR APNOIA OR APNOEIC OR HYPOAPNE??? OR HYPERAPNE???
S2 285 S1(3N)(TRACK??? OR MONITOR??? OR MEASUR??? OR MEASUREMENT? ? OR COUNT??? OR ASSESS? OR EVALUAT? OR JUDG? OR ESTIMAT? OR - CALCULAT??? OR COMPUT??? OR SURVEY??? OR CHECK??? OR NUMERAT?- ?? OR ENUMERAT??? OR CAPTUR??? OR RECORD???)
S3 12215 HISTOGRAM? OR (BAR OR GANTT)()(GRAPH? OR CHART?)
S4 1105056 CENTROID OR MEAN OR MODE OR AVERAGE OR MEDIAN OR NORM OR N- ORMED OR MEDIAL
S5 4408475 BATCH?? OR BLOCK OR BLOC OR COLLECTION OR ENSEMBLE OR GROU- P? OR CLUSTER? OR BUNDL? OR COLLECTIV? OR MERGED OR COMMUNAL? OR PLURALITY
S6 3 S2 AND S3
S7 3 S6 NOT AY=2004:2008
S8 34 S2 AND S4
S9 13 S8 AND S5
S10 13 S9 NOT S7
S11 9 S10 NOT AY=2004:2007
S12 1019 AU=(KOH, S? OR KOH S?)
S13 10 S12 AND S1
?

7/3,K/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0013080363 - Drawing available
WPI ACC NO: 2003-160948/200316
XRPX Acc No: N2003-127097
Biological information recording device for medical application, outputs histogram of read breathing and electrocardiogram information which are matched on time axis
Patent Assignee: FUKUDA DENSHI KK (FKKI)
Inventor: SAITO K; TAKAHASHI H
Patent Family (1 patents, 1 countries)

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
JP 2003000559	A	20030107	JP 2001188442	A	20010621	200316 B

Priority Applications (no., kind, date): JP 2001188442 A 20010621

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
JP 2003000559	A	JA	15	9	

Biological information recording device for medical application, outputs histogram of read breathing and electrocardiogram information which are matched on time axis

Alerting Abstract ...oxygen. An output unit matches the read information on a time axis, and outputs a histogram on the same page....for respiratory distress diagnosis during sleep e.g. sleep apnea syndrome and cardiac diagnosis using apnea detector, polysomnography (PSG) recording device...

Title Terms.../Index Terms/Additional Words: HISTOGRAM ;

7/3,K/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0012505263 - Drawing available
WPI ACC NO: 2002-453145/200248
XRPX Acc No: N2002-357279
Apnea monitoring method, involves transmitting produced voltage signal to a processor, to calculate energy spectrum having peaks which are calculated as respiration rates
Patent Assignee: OCEAN LAB INC (OCEA-N)
Inventor: SULLIVAN P K
Patent Family (1 patents, 1 countries)

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
US 6375621	B1	20020423	US 198729248	A	19870306	200248 B
			US 1988289689	A	19881227	

US 1994364101 A 19941227

Priority Applications (no., kind, date): US 198729248 A 19870306; US 1988289689 A 19881227; US 1994364101 A 19941227

Patent Details
Number Kind Lan Pg Dwg Filing Notes
US 6375621 B1 EN 6 2 Continuation of application US 198729248
Continuation of application US 1988289689

Apnea monitoring method, involves transmitting produced voltage signal to a processor, to calculate energy spectrum having peaks...

Original Titles:
Passive apnea monitor .

Alerting Abstract DESCRIPTION - An INDEPENDENT CLAIM is included for apnea monitoring instrument...

...USE - For monitoring apnea and sudden infant death syndrome (SIDS) and biological functionals such as heart and respiration rates...

...DESCRIPTION OF DRAWINGS - The figure shows a schematic drawing apnea monitoring instrument.

Original Publication Data by Authority

Original Abstracts:
...the acoustic and electromechanical signals of the patient and calculates an energy spectrum periodogram or histogram using time series analysis techniques. The patient lies down on a large piezoelectric film (few...
Claims:
An apnea and SIDS monitoring method comprising at least one thin piezoelectric film, communicating a patientprimes acoustic transmissions to the thin piezoelectric...

7/3,K/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0005336361 - Drawing available
WPI ACC NO: 1990-334537/199044
XRPX Acc No: N1990-255747
System for displaying information relating to apnoea - measures cardiac activity respiratory effort and relative saturation of oxyhaemoglobin
Patent Assignee: AIR SHIELDS INC (AIRS-N); AIR-SHIELDS INC (AIRS-N)
Inventor: HATKE F L; KOLAROVIC R S; STUBBS R A; WISE J A
Patent Family (6 patents, 17 countries)
Patent Application
Number Kind Date Number Kind Date Update
WO 1990009146 A 19900823 WO 1990US858 A 19900214 199044 B
AU 199051959 A 19900905 199048 E

EP 460054 A 19911211 EP 1990904038 A 19900214 199150 E
JP 4504966 W 19920903 JP 1990504359 A 19900214 199242 E
WO 1990US858 A 19900214
US 5206807 A 19930427 US 1989310678 A 19890216 199318 E
JP 3054437 B2 20000619 JP 1990504359 A 19900214 200033 E
WO 1990US858 A 19900214

Priority Applications (no., kind, date): US 1989310678 A 19890216
Patent Details
Number Kind Lan Pg Dwg Filing Notes
WO 1990009146 A EN
National Designated States,Original: AU CA JP KR
Regional Designated States,Original: AT BE CH DE DK ES FR GB IT LU NL SE
EP 460054 A EN
Regional Designated States,Original: DE FR GB IT NL
JP 4504966 W JA 23 PCT Application WO 1990US858
Based on OPI patent WO 1990009146
US 5206807 A EN 30 21
JP 3054437 B2 JA 31 PCT Application WO 1990US858
Previously issued patent JP 04504966

Based on OPI patent WO 1990009146

Equivalent Alerting Abstract ...Smoothed instantaneous heart rate, respiratory effort, trans thoracic impedance, and smoothed instantaneous respiration rate are calculated . Apnea and bradycardia events are detected storing data indicative of the events is stored and displayed to a user on a single visual display. A first histogram shows the absolute number of apnea events for each of a predetermined number of time...
...is provided of the absolute number of apnea events during the predetermined period. A second histogram shows the absolute number of apnea events for each of a predetermined number of durations...

Original Publication Data by Authority

Claims:
...events, and simultaneously displaying to a user on a single visual display: 1) a first histogram showing the absolute number of apnea events for each of a predetermined number of time...

...of the absolute number of apnea events during said predetermined period; and 3) a second histogram showing the absolute number of apnea events for each of a predetermined number of durations...
?
11/3,K/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0014973398 - Drawing available
WPI ACC NO: 2005-321231/200533
XRPX Acc No: N2005-262681
Implantable cardiac device for monitoring heart activity, has generator to generate pacing pulses for evaluation timeframe, and sleep apnea detector to measure durations of episodes experienced during timeframe of therapy

Patent Assignee: PACESETTER INC (PACE-N)
Inventor: PARK E
Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update
US 6881192	B1	20050419	US 2002170384	A	20020612	200533 B

Priority Applications (no., kind, date): US 2002170384 A 20020612

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
US 6881192	B1	EN	16	6	

Implantable cardiac device for monitoring heart activity, has generator to generate pacing pulses for evaluation timeframe, and sleep apnea detector to measure durations of episodes experienced during timeframe of therapy

Original Titles:
Measurement of sleep apnea duration and evaluation of response therapies using duration metrics

Alerting Abstract ...ADVANTAGE - The sleep apnea detector measures the durations of episodes experienced during the timeframe of the prescribed therapy, thus discerning severity...

...DESCRIPTION OF DRAWINGS - The drawing shows a functional block diagram of an implantable cardiac device...

Original Publication Data by Authority

Original Abstracts:
An implantable cardiac device is programmed to detect an episode of sleep apnea , measure the duration of the episode, and store this information in memory. When multiple episodes are recorded, the device computes statistics on the apnea durations, such as average apnea duration and total apnea duration for a preselected time period (e.g., 8-hour rest period, 24-hour...

...at treating apnea than others. For instance, a pacing therapy that results in lowering the average apnea duration or total apnea duration may be preferred over other pacing therapies that do not achieve such results.
Claims:
...to detect when a patient, who is at rest, is experiencing an episode of sleep apnea and to measure a duration of the episode of sleep apnea ;a therapy module to prescribe a pacing therapy for treating sleep apnea from among multiple...
...pacing pulses according to the prescribed pacing therapy for an evaluation timeframe; andthe sleep apnea detector measuring durations of episodes experienced during the evaluation timeframe of the prescribed pacing therapy.

11/3,K/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

0013940225 - Drawing available
WPI ACC NO: 2004-120530/200412
XRPX Acc No: N2004-096413
Implantable cardiac device e.g. pacemaker, detects whether patient experiences sleep disturbance, based on detected activity of patient in reclined position
Patent Assignee: FLORIO J J (FLOR-I); PACESETTER INC (PACE-N)
Inventor: FLORIO J J
Patent Family (2 patents, 1 countries)

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
US 20040002742	A1	20040101	US 2002185776	A	20020627	200412 B
US 7117036	B2	20061003	US 2002185776	A	20020627	200665 E

Priority Applications (no., kind, date): US 2002185776 A 20020627

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
US 20040002742	A1	EN	14	8	

Alerting Abstract ...DESCRIPTION OF DRAWINGS - The figure shows the functional block diagram of the multi-chamber implantable device.

Original Publication Data by Authority

Original Abstracts:
...device monitors an instantaneous signal from an activity sensor to detect variances from normal rest mode activity. When the variances exceed a preset threshold for a short time period (e.g., less than 30-40...

...are reported to a physician as a diagnostic to help ascertain the severity of sleep apnea or to evaluate the effectiveness of pacing therapies being applied to treat sleep apnea...

...device monitors an instantaneous signal from an activity sensor to detect variances from normal rest mode activity. When the variances exceed a preset threshold for a short time period (e.g., less than 30-40 sec.), the patient is presumed...

...are reported to a physician as a diagnostic to help ascertain the severity of sleep apnea or to evaluate the effectiveness of pacing therapies being applied to treat sleep apnea. >
Claims:
...level of patient activity as sleep disturbance;administering multiple different pacing therapies to treat sleep apnea ; and evaluating the pacing therapies based on how the pacing therapies affect the sleep disturbances.

11/3,K/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0013584147 - Drawing available
WPI ACC NO: 2003-678837/200364
XRPX Acc No: N2003-541961
Implantable cardiac stimulation device for treating sleep apnea, has circuitry responding to potential sleep apnea condition to control pulse generators to pace heart at sleep prevention rate
Patent Assignee: BORNZIN G A (BORN-I); KOH S (KOHS-I); PACKSETTER INC (PACK-N); PARK E (PARK-I)
Inventor: BORNZIN G A; KOH S; PARK E
Patent Family (2 patents, 1 countries)

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
US 20030153955	A1	20030814	US 200277660	A	20020214	200364 B
US 6999817	B2	20060214	US 200277660	A	20020214	200613 E

Priority Applications (no., kind, date): US 200277660 A 20020214

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
US 20030153955	A1	EN	21	10	

Alerting Abstract ...DESCRIPTION OF DRAWINGS - The drawing shows a schematic block diagram of an implantable cardiac stimulation device including physiologic sensors and pulse generators...

Original Publication Data by Authority

Original Abstracts:
...sensor and can be configured to pace a patient's heart according to a rest mode of operation. The cardiac stimulation device uses measurements from the physiologic sensor to prevent and treat sleep apnea using a revised rest mode of operation. The revised rest mode operates under a presumption that sleep apnea is primary to a reduced heart rate, rather than secondary, so that...

...sensor and can be configured to pace a patient's heart according to a rest mode of operation. The cardiac stimulation device uses measurements from the physiologic sensor to prevent and treat sleep apnea using a revised rest mode of operation. The revised rest mode operates under a presumption that sleep apnea is primary to a reduced heart rate, rather than secondary, so that pacing at a rate higher...

11/3,K/4 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0013332333 - Drawing available
WPI ACC NO: 2003-419749/200339
Related WPI Acc No: 2006-633892
XRPX Acc No: N2003-335128
Sleep apnea detecting apparatus, has computer loaded with predetermined algorithm that calculates RR interval of acquired electrocardiogram signal to provide diagnostic measure of apnea

Patent Assignee: UNIV COLLEGE DUBLIN (UYDU-N); BIANCAMED LTD (BIAN-N)
Inventor: CHAZAL P D; HENEGHAN C; SHERIDAN E; DE CHAZAL P
Patent Family (2 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update
US 20030055348	A1	20030320	US 2001952688	A	20010914	200339 B
US 7025729	B2	20060411	US 2001952688	A	20010914	200627 E

Priority Applications (no., kind, date): US 2001952688 A 20010914

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
US 20030055348	A1	EN	20	9	

Sleep apnea detecting apparatus, has computer loaded with predetermined algorithm that calculates RR interval of acquired electrocardiogram signal to provide diagnostic measure of apnea

Alerting Abstract ...processed ECG signal and ECG derived respiratory signal to produce an output indicative of diagnostic measure of apnea . DESCRIPTION - An INDEPENDENT CLAIM is also included for a method of obtaining a diagnostic measure of sleep apnea .
...

...ADVANTAGE - The apparatus provides an efficient and accurate measurement of sleep apnea .
...

...The drawing shows a flowchart depicting the steps involved in the method of obtaining diagnostic measure of sleep apnea .

Original Publication Data by Authority

Original Abstracts:
There is provided a method of determining a diagnostic measure of sleep apnea including the following steps : acquiring an electrocardiogram signal, calculating a set of RR intervals and electrocardiogram-derived respiratory signal...

...a set of spectral and time-domain measurements over time periods including power spectral density, mean , and standard deviation. These measurements are processed by a classifier model which has been trained on a pre-existing...

...overall diagnostic measure. The system also provides a system and apparatus for providing a diagnostic measure of sleep apnea .

...

...There is provided a method of determining a diagnostic measure of sleep apnea including the following steps: acquiring an electrocardiogram signal, calculating a set of RR intervals and electrocardiogram-derived respiratory signal from said electrocardiogram, and hence...

...a set of spectral and time-domain measurements over time periods

including power spectral density, mean , and standard deviation. These measurements are processed by a classifier model which has been trained on a pre-existing data base of electrocardiogram signals...

...overall diagnostic measure. The system also provides a system and apparatus for providing a diagnostic measure of sleep apnea. >
Claims:
...analysing said electrocardiogram signal to produce an output signal; and means for providing a diagnostic measure of sleep apnea based on said output signal.

...

...time periods as either apneic or normal; andmeans for combining classification results from a plurality of the time periods and for providing a diagnostic measure of sleep apnea for the human patient based on the combined classification results.

11/3,K/5 (Item 5 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0012267677 - Drawing available
WPI ACC NO: 2002-207951/200227
XRPX Acc No: N2002-158589
System for automatic evaluation of indexes of patient's volemic status uses differences between systolic pressure peaks during apnea and mechanical breathing periods
Patent Assignee: MILANO POLITECNICO (MILA-N); MILANO POLYTECNICO (MILA-N) ; POLITERNICO DI MILANO (POLI-N); REDAELLI A (REDA-I); SONCINI M (SONC-I); SUSINI G (SUSI-I)
Inventor: REDAELLI A; SONCINI M; SUSINI G
Patent Family (6 patents, 29 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update
EP 1155658	A2	20011121	EP 2001201744	A	20010511	200227 B
CA 2347530	A1	20011116	CA 2347530	A	20010514	200227 E
JP 2002000572	A	20020108	JP 2001144311	A	20010515	200227 E
US 20010053881	A1	20011220	US 2001854490	A	20010515	200227 E
US 6585658	B2	20030701	US 2001854490	A	20010515	200345 E
IT 1318519	B	20030827	IT 2000MI1070	A	20000516	200374 E

Priority Applications (no., kind, date): IT 2000MI1070 A 20000516

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
EP 1155658	A2	EN	7	2	
Regional Designated States,Original: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
CA 2347530	A1	EN			
JP 2002000572	A	JA	5		

Alerting Abstract ...positive systolic pressure peaks, arrangements for determining systolic peak averages, an arrangement for determining an average of the minimum positive systolic peaks in the mechanical breathing

period and an arrangement for...
...systolic peak averages in the apnea and mechanical breathing periods, an arrangement for determining an average of the minimum positive systolic peaks in the mechanical breathing period and an arrangement for...

...DESCRIPTION OF DRAWINGS - The drawing shows a block diagram representation of a system for automatic evaluation of indexes of patient's volemic status...

Original Publication Data by Authority

Original Abstracts:
...volemic status of a patient comprises: means suitable for submitting said patient to a preset period of apnoea and to a preset period of mechanical breathing; heart pressure probes for acquiring an analogical...

...determining the values of positive systolic peaks of said pressure; means for determining a first average value of the positive systolic peaks of said pressure in said preset period of apnoea; means for determining a second average value of the maximum positive systolic peaks of said pressure in said preset period of mechanical breathing; means for determining a third average value of the minimum positive systolic peaks of said pressure in said preset period of mechanical breathing; means for calculating a first index of volemic status equal to the difference between said second value...

...determining the values of positive systolic peaks of said pressure; element for determining a first average value of the positive systolic peaks of said pressure in said preset period of apnoea; element for determining a second average value of the maximum positive systolic peaks of said pressure in said preset period of mechanical breathing; element for determining a third average value of the minimum positive systolic peaks of said pressure in said preset period of mechanical breathing; system for calculating a first index of volemic status equal to the difference between said second value and said first value; system for calculating a second index...
Claims:
...the values of positive systolic peaks of said pressure; means (5) to determine a first average value of the positive systolic peaks of said pressure in said preset period of apnoea; means (5) to determine a second average value of the maximum positive systolic peaks of said pressure in said preset period of mechanical breathing; means (5) to determine a third average value of the minimum positive systolic peaks of said pressure in said preset period of mechanical breathing; means (5) to calculate a first index of volemic status equal to the difference...

...determine the values of positive systolic peaks of said pressure; means to determine a first average value of the positive systolic peaks of said pressure in said preset period of apnoea; means to determine a second average value of the maximum positive systolic peaks of said pressure in said preset period of mechanical breathing; means to determine a third average value of the minimum positive systolic peaks of said pressure in said preset period of mechanical breathing; means to calculate a first index of volemic status equal to the difference between said second value and said first value; means to calculate a second index of volemic status

equal to the difference between said third value e said first value...

...determine the values of positive systolic peaks of said pressure; means to determine a first average value of the positive systolic peaks of said pressure in said preset period of apnoea; means to determine a second average value of the maximum positive systolic peaks of said pressure in said preset period of mechanical breathing; means to determine a third average value of the minimum positive systolic peaks of said pressure in said preset period of mechanical breathing; means to calculate a first index of volemic status equal to the difference between said second value and said first value; means to calculate a second index of volemic status equal to the difference between said third value e said first value; a display of said indexes of volemic status.

11/3,K/6 (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0012264362 - Drawing available
WPI ACC NO: 2002-204551/200226
Related WPI Acc No: 1994-082745; 1995-130285; 1997-153301; 1999-253690; 2001-541067; 2002-040030; 2003-174849; 2003-247558; 2003-329259; 2003-731055; 2003-764658; 2005-757289; 2006-520451; 2006-536777; 2006-536778; 2006-556598; 2006-658155; 2007-015395; 2007-156860; 2007-556564; 2007-716181
XRPX Acc No: N2002-155577
Respiratory status determining device for sleep apnea diagnosis, outputs calculated index of minute gas ventilation result and oxygen saturation result of human blood acquired from respective sensors
Patent Assignee: LYNN L A (LYNN-I)
Inventor: LYNN E N; LYNN L A
Patent Family (1 patents, 1 countries)

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
US 6342039	B1	20020129	US 1992931976	A	19920819	200226 B
			US 1993151901	A	19931115	
			US 1995391811	A	19950221	
			US 1997789460	A	19970127	
			US 199752438	P	19970714	
			US 199752439	P	19970719	
			US 1999409264	A	19990930	

Priority Applications (no., kind, date): US 1992931976 A 19920819; US 1993151901 A 19931115; US 1995391811 A 19950221; US 1997789460 A 19970127; US 199752438 P 19970714; US 199752439 P 19970719; US 1999409264 A 19990930

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
US 6342039	B1	EN	36	18	C-I-P of application US 1992931976
					Continuation of application US 1993151901
					Continuation of application US 1995391811
					C-I-P of application US 1997789460

Related to Provisional US 199752438
Related to Provisional US 199752439
Continuation of patent US 5398682
Continuation of patent US 5605151

Respiratory status determining device for sleep apnea diagnosis, outputs calculated index of minute gas ventilation result and oxygen saturation result of human blood acquired from...

Alerting Abstract ...NOVELTY - A flow sensor such as a pneumotachometer and pulse oximeter (12) respectively generate average minute ventilation result and average oxygen saturation result of human blood, within a specified time interval. A microprocessor (20) compares...
...ADVANTAGE - The system ensures efficient collection and analysis of pulse oximetry values during sleep, hence the sleep apnea can be diagnosed ...

...DESCRIPTION OF DRAWINGS - The figure shows the block diagram of the respiratory status determining device...

Original Publication Data by Authority

Original Abstracts:
A method of evaluating a patient with sleep apnea includes monitoring a patient to produce at least one timed waveform of at least one physiologic parameter...

...apnea based on at least the determining. A device for determining the severity of sleep apnea comprises a monitor capable of generating a signal indicative of at least one physiologic parameter and a processor...

...the processor operating to generate a timed waveform of the parameter and to identify a plurality of sequential waveform variations indicative of a corresponding plurality of sequential apneas, the sequential waveform variations having temporal and spatial relationships between the waveform...

11/3,K/7 (Item 7 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0007738040 - Drawing available
WPI ACC NO: 1996-361850/199636
XRPX Acc No: N1996-305112
Treatment method for obstructive sleep apnea by electrical stimulation of muscles of upper airway - monitoring changes in respiratory waveform for parameter characteristic of patient's level of respiratory effort which is averaged over successive respiratory cycles to provide baseline average
Patent Assignee: MEDTRONIC INC (MEDT)
Inventor: BIERBAUM R W; ERICKSON D J; TESTERMAN R L
Patent Family (1 patents, 1 countries)

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
US 5540733	A	19960730	US 1994310140	A	19940921	199636 B

Priority Applications (no., kind, date): US 1994310140 A 19940921

Patent Details
Number Kind Lan Pg Dwg Filing Notes
US 5540733 A EN 44 34

...s level of respiratory effort which is averaged over successive respiratory cycles to provide baseline average

Alerting Abstract ...for a parameter characteristic of the patient's level of respiratory effort, and averaging a plurality of values of the parameter taken from successive respiratory cycle. The average provides a baseline average for the parameter...

...A limit value is generated from the baseline average , and is compared a value of the parameter. Electrical stimulation is applied to the muscles ...

Title Terms.../Index Terms/Additional Words: AVERAGE ;

Original Publication Data by Authority

Original Abstracts:
...apnea and then stimulating muscles of the upper airway in response to the apnea. The apnea is detected by monitoring changes in a respiratory effort waveform of the patient for a parameter characteristic of the patient's level of respiratory effort which is averaged over successive respiratory cycles to provide a baseline average . A limit value is then generated from the baseline average and the value for the parameter is compared with the limit value. If the limit value is exceeded, an...
Claims:
...upper airway by the steps of:</br>(a) detecting an apnea by the steps of:</br>(1) monitoring a respiratory effort waveform for a parameter characteristic of the patient's level of respiratory effort;</br>(2) averaging a plurality of values of the parameter taken from successive respiratory cycle, said average providing a baseline average for the parameter;</br>(3) generating a limit value from the baseline average ;</br>(4) comparing a value of the parameter with the limit value; and</br>(b) applying electrical stimulation to the muscles of the upper airway upon detection of the apnea at a...

11/3,K/8 (Item 8 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0007137888 - Drawing available
WPI ACC NO: 1995-171690/199523
Related WPI Acc No: 1999-329027; 1999-373394; 1999-446272; 2005-041747
XRPX Acc No: N1995-134561
Determining occurrence of sleep apnea in patient - measuring respiratory air flow and using variance to determine whether apnea is occurring
Patent Assignee: RESCARE LTD (RESC-N); RESMED LTD (RESM-N)

Inventor: BERTHON-JONES M
Patent Family (16 patents, 4 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update
EP 651971	A1	19950510	EP 1994308139	A	19941104	199523 B
AU 199477641	A	19950518	AU 199477641	A	19941103	199528 E
US 5704345	A	19980106	US 1994335118	A	19941104	199808 E
AU 199855382	A	19980423	AU 199477641	A	19941103	199828 NCE
			AU 199855382	A	19980219	
AU 199855383	A	19980423	AU 199477641	A	19941103	199828 NCE
			AU 199855383	A	19980219	
AU 691200	B	19980514	AU 199477641	A	19941103	199831 E
AU 702820	B	19990304	AU 199477641	A	19941103	199921 NCE
			AU 199855382	A	19980219	
AU 709279	B	19990826	AU 199477641	A	19941103	199946 E
			AU 199855383	A	19980219	
AU 199936787	A	19991028	AU 199855383	A	19980219	200005 NCE
			AU 199936787	A	19990625	
US 6029665	A	20000229	US 1994335118	A	19941104	200018 E
			US 1997950322	A	19971014	
AU 724589	B	20000928	AU 199855383	A	19980219	200052 NCE
			AU 199936787	A	19990625	
US 6138675	A	20001031	US 1994335118	A	19941104	200057 E
			US 1997931439	A	19970916	
US 6363933	B1	20020402	US 1994335118	A	19941104	200226 E
			US 1997931439	A	19970916	
			US 1999464584	A	19991216	
EP 651971	B1	20030820	EP 1994308139	A	19941104	200356 E
			EP 1999103391	A	19941104	
			EP 1999104817	A	19941104	
			EP 1999108730	A	19941104	
DE 69433051	E	20030925	DE 69433051	A	19941104	200371 E
			EP 1994308139	A	19941104	
US 6675797	B1	20040113	US 1994335118	A	19941104	200405 E
			US 1997950322	A	19971014	
			US 2000484761	A	20000118	

Priority Applications (no., kind, date): AU 19932246 A 19931105; AU 199477641 A 19941103; AU 199855382 A 19980219; AU 199855383 A 19980219; AU 199936787 A 19990625

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
EP 651971	A1	EN	37	16	
Regional Designated States,Original: DE FR GB					
US 5704345	A	EN	33	16	
AU 199855382	A	EN			Division of application AU 199477641
AU 199855383	A	EN			Division of application AU 199477641
AU 691200	B	EN			Previously issued patent AU 9477641
AU 702820	B	EN			Division of application AU 199477641
					Previously issued patent AU 9855382

Division of patent AU 691200
AU 709279 B EN Division of application AU 199477641

Previously issued patent AU 9855383

Division of patent AU 691200
AU 199936787 A EN Division of application AU 199855383

Division of patent AU 709279
US 6029665 A EN Continuation of application US 1994335118

Continuation of patent US 5704345
AU 724589 B EN Division of application AU 199855383

Previously issued patent AU 9936787

Division of patent AU 709279
US 6138675 A EN Continuation of application US 1994335118

Continuation of patent US 5704345
US 6363933 B1 EN Continuation of application US 1994335118

Continuation of application US 1997931439

Continuation of patent US 5704345
Continuation of patent US 6138675
EP 651971 B1 EN Related to application EP 1999103391
Related to application EP 1999104817
Related to application EP 1999108730
Related to patent EP 920845
Related to patent EP 927538
Related to patent EP 934723
Regional Designated States,Original: DE FR GB
DE 69433051 E DE Application EP 1994308139
Based on OPI patent EP 651971
US 6675797 B1 EN Continuation of application US 1994335118

Continuation of application US 1997950322

Continuation of patent US 5704345
Continuation of patent US 6029665

Alerting Abstract ...The method of determining apnea involves measuring a respiratory air flow from a patient as function of time. A variance of the...
...The variance is used to determine whether apnea is occurring. The variance is a moving average over a time window. The variance is compared with a threshold value, and if it...

Original Publication Data by Authority

Original Abstracts:
...from a patient is measured to give an air flow signal. The determination of an apnea is performed by calculating the variance of the air flow signal over a moving time window and comparing the variance with a

threshold...

...air flow from a patient is measured to give an air flow signal. The determination of an apnea is performed by calculating the variance of the air flow signal over a moving time window and comparing the variance with a threshold value. One determination of partial...

...flow from a patient is measured to give an air flow signal. The determination of an apnea is performed by calculating the variance of the air flow signal over a moving time window and comparing the variance with a threshold value. One determination of partial obstruction ...

...flow from a patient is measured to give an air flow signal. The determination of an apnea is performed by calculating the variance of the air flow signal over a moving time window and comparing the variance with a threshold value. One determination of partial obstruction ...flow from a patient is measured to give an air flow signal. The determination of an apnea is performed by calculating the variance of the air flow signal over a moving time window and comparing the variance with a threshold value. One determination of partial obstruction ...

...an apnea, patency and/or partial obstruction of the airway are disclosed. Respiratory air flow from a patient is measured to give an air flow signal. The determination of an apnea is performed by calculating the variance of the air flow signal over a moving time window and comparing the variance with a threshold value. One determination of partial obstruction of the airway is...
Claims:
...a function of time;</br> determining the variance of said measured air flow; and</br> determining from said variance that an apnea is occurring...

...air flow measurement means (50, 56) to receive said air flow signal, and having a plurality of processing elements comprising:(i) a sampling element (54) for sampling said airflow signal at...

...a detection element (92) for identifying the inspiratory samples from said sampling element;</br>characterized by the apparatus further comprising:(iii) a computational element (94, 96, 98, 100) to calculate a measure of partial obstruction which is a ratio of the mean of a mid-portion of said inspiratory samples to the mean of said inspiratory samples...

... Appareil destine a detecter une obstruction partielle des voies...

...Claim 12. Apparatus for determining the occurrence of an apnea in a patient, the apparatus comprising; ...function of time;determining a variance of said measured air flow; anddetermining from said variance that an apnea is occurring....

0003925105
WPI ACC NO: 1987-014256/198702
Self-adaptive apnoea monitoring apparatus - detects respiration rate and amplitude of subject using number of electrodes for predetermined initial time interval of breath
Patent Assignee: ATLAS D (ATLA-I)
Inventor: ATLAS D
Patent Family (2 patents, 2 countries)

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
US 4630614	A	19861223	US 1985708416	A	19850305	198702 B
IL 71468	A	19880630	IL 71468	A	19840408	198835 E

Priority Applications (no., kind, date): IL 71468 A 19840408

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
US 4630614	A	EN	7	4	
IL 71468	A	EN			

Self-adaptive apnoea monitoring apparatus...

Original Titles:
Apnea monitoring apparatus

Alerting Abstract ...time interval covering a number of breaths of the subject and computing from it the average respiration volume of the subject. A device stores as a reference average volume, the average respiration volume of the subject during an initial time interval, and also stores as current average volumes the average respiration volume of the subject during subsequent time intervals...

...Each of the current average respiration volumes is compared with the reference average respiration volume, and a signaller is actuated to indicate the occurrence of apnea whenever a current average respiration volume falls below the reference average respiration volume by a predetermined percentage...

Original Publication Data by Authority

Original Abstracts:
A method and apparatus for monitoring a subject to detect the occurrence of apnea , wherein the respiration rate and amplitude of the subject is detected by a plurality of electrodes for a predetermined initial time interval of a plurality of breath to produce a measure of the average respiration volume of the subject, the latter measurement is stored, and is compared with the detected respiration rate and amplitude of the subject during subsequent time intervals. A signal is generated whenever a detected average volume falls below the reference average volume by a predetermined percentage.
?

13/3,K/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0017079880 - Drawing available
WPI ACC NO: 2007-794837/200774
XRPX Acc No: N2007-630756
Sleep apnea therapy selecting method for e.g. multi-chamber implantable cardiac stimulation device, involves providing phrenic nerve stimulation therapy or cardiac stimulation pulse therapy based on blood oxygen saturation level
Patent Assignee: PACESETTER INC (PACE-N)
Inventor: KOH S
Patent Family (1 patents, 1 countries)

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
US 7269459	B1	20070911	US 200554082	A	20050208	200774 B

Priority Applications (no., kind, date): US 200554082 A 20050208

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
US 7269459	B1	EN	9	3	

Sleep apnea therapy selecting method for e.g. multi-chamber implantable cardiac stimulation device, involves providing phrenic...

Original Titles:
Implantable cardiac device with selectable tiered sleep apnea therapies and method
Inventor: KOH S

Alerting Abstract ...NOVELTY - The method involves detecting apnea of a patient. A blood oxygen saturation level of the patient is measured responsive to the detection of apnea . One of a phrenic nerve stimulation therapy or cardiac stimulation pulse therapy is selected depending... DESCRIPTION - An INDEPENDENT CLAIM is also included for an implantable cardiac stimulation device comprising an apnea detector...

...USE - Used for selecting a sleep apnea therapy to be provided by an implantable cardiac device (claimed) e.g. implantable defibrillator, implantable...

...cardioversion, defibrillation and pacing stimulation, for maintaining an acceptable blood oxygen saturation level during sleep apnea episodes...

...mode for heart and prevents myocardial infarction that results in heart attack, by continuously monitoring apnea of the patient, thus reliably maintaining acceptable blood oxygen saturation levels during sleep apnea episodes...

...DESCRIPTION OF DRAWINGS - The drawing shows a flow chart representing a sleep apnea therapy selecting method.

Title Terms.../Index Terms/Additional Words: APNOEA ;

Original Publication Data by Authority

Inventor name & address:
Koh, Steve ...
Original Abstracts:
An implantable cardiac stimulation device treats apnea with either phrenic nerve stimulation pulses or cardiac stimulation pulses. The device includes an apnea detector that detects apnea of a patient, a blood oxygen saturation monitor that measures a blood oxygen saturation level of the patient responsive to detection of apnea , and a tiered therapy circuit that provides phrenic nerve stimulation pulses if the measured blood...
Claims:
What is claimed is:1. In an implantable cardiac device, a method comprising:detecting apnea of a patient;measuring a blood oxygen saturation level of the patient responsive to detection of apnea ; andselecting one of phrenic nerve stimulation therapy or cardiac stimulation pulse therapy depending upon...

13/3,K/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0017057680 - Drawing available
WPI ACC NO: 2007-772737/200772
XRPX Acc No: N2007-611262
Implantable cardiac device for detecting sleep apnea episode, differentiates central sleep apnea and obstructive sleep apnea based on oscillation of parameter of cardiac electrical activity
Patent Assignee: PACESETTER INC (PACE-N)
Inventor: KOH S ; PARK E
Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update
US 7225021	B1	20070529	US 2004769165	A	20040130	200772 B

Priority Applications (no., kind, date): US 2004769165 A 20040130

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
US 7225021	B1	EN	11	4	

Implantable cardiac device for detecting sleep apnea episode, differentiates central sleep apnea and obstructive sleep apnea based on oscillation of parameter of cardiac electrical activity

Original Titles:
Differentiation of central sleep apnea and obstructive sleep apnea using an implantable cardiac device
Inventor: KOH S ...

Alerting Abstract ...that senses weather a patient is at rest and senses cardiac electrical activity. A sleep apnea detector detects when a patient, who is at rest, is experiencing an episode of sleep apnea and differentiates between central sleep apnea and obstructive sleep apnea based on oscillation of a parameter of the cardiac electrical activity. The cardiac electrical activity...

DESCRIPTION - An INDEPENDENT CLAIM is included for method for detecting sleep apnea and differentiating obstructive sleep apnea and central sleep apnea .
...

...USE - For detecting sleep apnea episodes...

...ADVANTAGE - The central sleep apnea and obstructive sleep apnea are differentiated for diagnostic purposes or the appropriate responsive therapies are administered

Title Terms.../Index Terms/Additional Words: APNOEA ;

Original Publication Data by Authority

Inventor name & address:
... Koh, Steve
Original Abstracts:
An implantable cardiac device is programmed to differentiate between central sleep apnea and obstructive sleep apnea . The implantable cardiac device utilizes a respiration-related parameter (e.g., respiration rate, tidal volume, and minute ventilation) to determine whether the patient is experiencing an episode of sleep apnea . When sleep apnea is detected, the implantable cardiac device examines the intracardiac electrogram (IEGM) to classify the apnea as either central sleep apnea or obstructive sleep apnea . The cardiac device may be further configured to administer different therapies depending upon the classification of sleep apnea. >
Claims:
...rest, the sensing circuitry further being operative to sense cardiac electrical activity; anda sleep apnea detector to detect when a patient, who is at rest, is experiencing an episode of sleep apnea and to differentiate between central sleep apnea and obstructive sleep apnea based on oscillation of a parameter of the cardiac electrical activity, the cardiac electrical activity...

13/3,K/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0016826482 - Drawing available
WPI ACC NO: 2007-541543/200753
XRPX Acc No: N2007-416526
Implantable cardiac device e.g. pacemaker, for patient, has impedance monitor control varying operating parameters of impedance monitor responsive to comparison of impedance monitoring characteristic results to present standards
Patent Assignee: PACESETTER INC (PACE-N)
Inventor: KOH S ; POORE J W
Patent Family (1 patents, 1 countries)

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
US 7200442	B1	20070403	US 2004938012	A	20040910	200753 B

Priority Applications (no., kind, date): US 2004938012 A 20040910

Patent Details
Number Kind Lan Pg Dwg Filing Notes
US 7200442 B1 EN 16 8

Inventor: KOH S ...

Alerting Abstract ...standards, thus providing a saturation free impedance measurement which avoids saturation signals interpreted as respiratory apnea and the automatic adjustment of impedance measurement parameters. The provision of the saturation free impedance measurement allows for ascertaining congestive heart failure (CHF) progression or regression status or sleep apnea , and assuring accurate patient condition assessment...

Original Publication Data by Authority

Inventor name & address:
Koh, Steve ...

13/3,K/4 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0016655353 - Drawing available
WPI ACC NO: 2007-370440/200735
XRAM Acc No: C2007-134515
XRPX Acc No: N2007-275795
Apnea detection via implantable medical system, e.g. pacemaker, comprises identifying time in which there is uniform decrease in diastolic blood pressure, and associating non-obstructive apnea with identified time
Patent Assignee: PACESETTER INC (PACE-N)
Inventor: KOH S
Patent Family (1 patents, 1 countries)
Patent Application
Number Kind Date Number Kind Date Update
US 7179229 B1 20070220 US 2004821241 A 20040407 200735 B

Priority Applications (no., kind, date): US 2004821241 A 20040407

Patent Details
Number Kind Lan Pg Dwg Filing Notes
US 7179229 B1 EN 19 8

Apnea detection via implantable medical system, e.g. pacemaker, comprises identifying time in which there is uniform decrease in diastolic blood pressure, and associating non-obstructive apnea with identified time

Original Titles:
System and method for apnea detection using blood pressure detected via an implantable medical system
Inventor: KOH S

Alerting Abstract ...NOVELTY - Detecting non-obstructive apnea within a patient using an implantable medical system comprising monitoring changes in the diastolic blood...

...uniform decrease in diastolic blood pressure from beat to beat is identified, and non-obstructive apnea is associated with the identified time having uniform decrease in the diastolic blood pressure from... DESCRIPTION - An INDEPENDENT CLAIM is included for an apnea detection system...

...USE - For detecting and treating non-obstructive apnea within a patient (claimed) comprises using an implantable medical system, e.g. pacemakers, implantable cardioverter...

...ADVANTAGE - Ensures prompt detection of an episode of non-obstructive apnea for immediate delivery of appropriate therapy...

...flow diagram providing an overview of the blood pressure-based technique for detecting non-obstructive apnea .

Title Terms/Index Terms/Additional Words: APNOEA ;

Original Publication Data by Authority

Inventor name & address:
Koh, Steve ...
Original Abstracts:
Techniques are provided for detecting non-obstructive forms of apnea within a patient using an implantable medical system based on changes in blood pressure. The...

...beat to beat over a sufficient period of time, typically only ten seconds, non-obstructive apnea is deemed to have commenced and appropriate therapy may then be delivered. Preferably, however, therapy is only delivered if the episode of apnea is corroborated based on thoracic impedance signals, accelerometer signals or the like. In this manner, an episode of non-obstructive apnea can be promptly and reliably detected, thus allowing for prompt delivery of therapy.
Claims:
What is claimed is:1. A method for detecting non-obstructive apnea within a patient using an implantable medical system, the method comprising the steps of:monitoring diastolic blood pressure; anddetecting non-obstructive apnea within the patient based on changes in diastolic blood pressure;wherein the step of detecting non-obstructive apnea within the patient based on changes in diastolic blood pressure includes the steps of:tracking...

...substantially uniform decrease in diastolic blood pressure from beat to beat; andassociating non-obstructive apnea with the period of time having the substantially uniform decrease in the diastolic blood pressure...

13/3,K/5 (Item 5 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0016087755
WPI ACC NO: 2006-619386/200664
XRPX Acc No: N2006-498751
Distinguishing Cheyne-Stokes Respiration caused by central sleep apnea or congestive heart failure, involves detecting periodicity of Cheyne-stokes respiration and determining the cause based on periodicity
Patent Assignee: PACESETTER INC (PACE-N)
Inventor: KOH S
Patent Family (1 patents, 1 countries)

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
US 7094207	B1	20060822	US 2004792305	A	20040302	200664 B

Priority Applications (no., kind, date): US 2004792305 A 20040302

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
US 7094207	B1	EN	28	14	

Distinguishing Cheyne-Stokes Respiration caused by central sleep apnea or congestive heart failure, involves detecting periodicity of Cheyne-stokes respiration and determining the cause...
Inventor: KOH S

Alerting Abstract ...NOVELTY - The Cheyne-Stokes Respiration (CSR) in a patient caused by central sleep apnea (CSA) is distinguished from CSR caused by congestive heart failure (CHF) using an implanted medical...
...INDEPENDENT CLAIM is also included for system useful in distinguishing CSR caused by central sleep apnea or congestive heart failure...

...USE - For distinguishing CSR caused by central sleep apnea or by congestive heart failure...

Title Terms.../Index Terms/Additional Words: APNOEA ;

Original Publication Data by Authority

Inventor name & address:
Koh, Steve ...
Original Abstracts:
Techniques are provided for distinguishing Cheyne-Stokes Respiration (CSR) caused by central sleep apnea (CSA) from CSR caused by congestive heart failure (CHF) and for evaluating the severity of...

...CSR. A time period associated with the CSR is determined based upon separate evaluation of apnea and hyperpnea periods during CSR and then the time period is compared against a time...
Claims:
...A system for distinguishing Cheyne-Stokes Respiration (CSR) within a patient caused by central sleep apnea (CSA) from CSR caused by congestive heart failure (CHF) using an implanted medical device, comprising...

13/3,K/6 (Item 6 from file: 350)

DIALOG(R)File 350:Derwent WPIX

0015910934 - Drawing available
WPI ACC NO: 2006-442575/200645
XRAM Acc No: C2006-138471
XRPX Acc No: N2006-362523
Severity evaluation system of congestive heart failure, determines periodicity associated with cheyne-stokes respiration for patient
Patent Assignee: PACESETTER INC (PACE-N)
Inventor: KOH S
Patent Family (1 patents, 1 countries)

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
US 7070568	B1	20060704	US 2004792085	A	20040302	200645 B

Priority Applications (no., kind, date): US 2004792085 A 20040302

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
US 7070568	B1	EN	28	14	

Inventor: KOH S
Original Publication Data by Authority

Inventor name & address:
Koh, Steve ...
Original Abstracts:
Techniques are provided for distinguishing Cheyne-Stokes Respiration (CSR) caused by central sleep apnea (CSA) from CSR caused by congestive heart failure (CHF) and for evaluating the severity of CHF, if present, based...

...CSR. A time period associated with the CSR is determined based upon separate evaluation of apnea and hyperpnea periods during CSR and then the time period is compared against a time-varying discrimination threshold derived...
Claims:
...patient by:detecting an episode of CSR; anddetermining the average duration of periods of apnea during the episode of CSR, determining the average duration of periods of breathing between the periods of apnea during CSR, and combining the average duration of periods of apnea with the average duration of periods of breathing; andevaluating the severity of CHF within the patient based on the periodicity.

13/3,K/7 (Item 7 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0014912891 - Drawing available
WPI ACC NO: 2005-260560/200527
XRPX Acc No: N2005-213877
Respiratory characteristic determining method for use in e.g. pacing therapy, involves finding respiratory characteristics based on atrioventricular conduction interval time, and discriminating obstructive

and central sleep apneas
Patent Assignee: BORNZIN G A (BORN-I); KOH S (KOHS-I); PARK E (PARK-I)
Inventor: BORNZIN G A; KOH S ; PARK E
Patent Family (1 patents, 1 countries)
Patent Application
Number Kind Date Number Kind Date Update
US 20050055060 A1 20050310 US 2003656540 A 20030905 200527 B

Priority Applications (no., kind, date): US 2003656540 A 20030905

Patent Details
Number Kind Lan Pg Dwg Filing Notes
US 20050055060 A1 EN 23 12

...Inventor: KOH S
...wave. Respiratory characteristics are determined based on the AVI time. The characteristic indicates whether sleep apnea is determined to discriminate obstructive and central sleep apneas.

Original Publication Data by Authority

Inventor name & address:
Koh, Steve ...

13/3,K/8 (Item 8 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0013584148 - Drawing available
WPI ACC NO: 2003-678838/200364
Related WPI Acc No: 2003-678835
XRPX Acc No: N2003-541962
Implantable cardiac stimulation device for treating sleep apnea , has circuitry to control pulse generators, and to adjust rest rate to sleep apnea prevention value when predetermined number of apnea episodes are detected
Patent Assignee: BORNZIN G A (BORN-I); KOH S (KOHS-I); PARK E (PARK-I); PACESETTER INC (PACE-N)
Inventor: BORNZIN G A; KOH S ; PARK E
Patent Family (2 patents, 1 countries)
Patent Application
Number Kind Date Number Kind Date Update
US 20030153956 A1 20030814 US 200277048 A 20020214 200364 B
US 2002247137 A 20020918
US 7212862 B2 20070501 US 200277048 A 20020214 200730 E
US 2002247137 A 20020918

Priority Applications (no., kind, date): US 200277048 A 20020214; US 2002247137 A 20020918

Patent Details
Number Kind Lan Pg Dwg Filing Notes
US 20030153956 A1 EN 24 10 Continuation of application US 200277048

US 7212862 B2 EN Continuation of application US 200277048

Continuation of patent US 6928324

Implantable cardiac stimulation device for treating sleep apnea , has circuitry to control pulse generators, and to adjust rest rate to sleep apnea prevention value when predetermined number of apnea episodes are detected

Original Titles:
Cardiac stimulation device including sleep apnea prevention and treatment
...

...Cardiac stimulation device including sleep apnea prevention and treatment
...Inventor: KOH S
Alerting Abstract ...is set to an initial value. The circuitry adjusts the rest rate to a sleep apnea prevention value when a predetermined number of sleep apnea episodes are detected....USE - Used for treating sleep apnea .
...

...ADVANTAGE - The circuitry adjusts the rest rate of the patient to a sleep apnea prevention rate, thereby preventing sleep apnea effectively

Title Terms.../Index Terms/Additional Words: APNOEA ;

Original Publication Data by Authority

Inventor name & address:
... Koh, Steve ...

... Koh, Steve
Original Abstracts:
...timing based on the physiologic parameter. The timed cardiac pacing pulses can prevent a sleep apnea condition. In one example, a cardiac stimulation device has a physiologic sensor and can be...
...The cardiac stimulation device uses measurements from the physiologic sensor to prevent and treat sleep apnea using a revised rest mode of operation. The revised rest mode operates under a presumption that sleep apnea is primary to a reduced heart rate, rather than secondary, so that pacing at a rate higher than the natural cardiac rate during sleep will prevent sleep apnea .

...

...timing based on the physiologic parameter. The timed cardiac pacing pulses can prevent a sleep apnea condition. In one example, a cardiac stimulation device has a physiologic sensor and can be...

...The cardiac stimulation device uses measurements from the physiologic sensor to prevent and treat sleep apnea using a revised rest mode of operation. The revised rest mode operates under a presumption that sleep apnea is primary to a reduced heart rate, rather than secondary, so that pacing at a rate higher than the natural cardiac rate during sleep will

prevent sleep apnea. >
Claims:
...circuitry is further operative to determine if the patient experiences a predetermined number of sleep apnea episodes based on the signals from the at least one physiologic sensor, and wherein the circuitry is responsive to the detection of the predetermined number of sleep apnea episodes to adjust the rest rate to a sleep apnea prevention value, wherein the sleep apnea prevention value is higher than the first value
...

...value, wherein the circuitry is further operative to adjust the rest rate to a sleep apnea prevention value based on the signals, wherein the sleep apnea prevention value is higher than the first value.

13/3,K/9 (Item 9 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0013584147 - Drawing available
WPI ACC NO: 2003-678837/200364
XRPX Acc No: N2003-541961
Implantable cardiac stimulation device for treating sleep apnea , has circuitry responding to potential sleep apnea condition to control pulse generators to pace heart at sleep prevention rate
Patent Assignee: BORNZIN G A (BORN-I); KOH S (KOHS-I); PACKSETTER INC (PACK-N); PARK E (PARK-I)
Inventor: BORNZIN G A; KOH S ; PARK E
Patent Family (2 patents, 1 countries)

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
US 20030153955	A1	20030814	US 200277660	A	20020214	200364 B
US 6999817	B2	20060214	US 200277660	A	20020214	200613 E

Priority Applications (no., kind, date): US 200277660 A 20020214

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
US 20030153955	A1	EN	21	10	

Implantable cardiac stimulation device for treating sleep apnea , has circuitry responding to potential sleep apnea condition to control pulse generators to pace heart at sleep prevention rate

Original Titles:
Cardiac stimulation device including sleep apnea prevention and treatment
...

...Cardiac stimulation device including sleep apnea prevention and treatment
...Inventor: KOH S

Alerting Abstract ...and generating corresponding signals. A circuitry connected to the sensor responds to a potential sleep apnea condition to control pulse generators (104) to pace the heart at a sleep apnea prevention rate. A controller includes an executable logic that distinguishes between a sleeping and a...

...USE - Used for treating sleep apnea .
...

...ADVANTAGE - The circuitry controls the pulse generators to pace at a sleep apnea prevention rate, thereby preventing sleep apnea effectively

Title Terms.../Index Terms/Additional Words: APNOEA ;

Original Publication Data by Authority

Inventor name & address:
... Koh, Steve ...

... Koh, Steve
Original Abstracts:
...timing based on the physiologic parameter. The timed cardiac pacing pulses can prevent a sleep apnea condition. In one example , a cardiac stimulation device has a physiologic sensor and can be configured to pace a ...

...The cardiac stimulation device uses measurements from the physiologic sensor to prevent and treat sleep apnea using a revised rest mode of operation. The revised rest mode operates under a presumption that sleep apnea is primary to a reduced heart rate, rather than secondary, so that pacing at a rate higher than the natural cardiac rate during sleep will prevent sleep apnea .

...

...timing based on the physiologic parameter. The timed cardiac pacing pulses can prevent a sleep apnea condition. In one example, a cardiac stimulation device has a physiologic sensor and can be configured to pace a patient's heart according to...

...The cardiac stimulation device uses measurements from the physiologic sensor to prevent and treat sleep apnea using a revised rest mode of operation. The revised rest mode operates under a presumption that sleep apnea is primary to a reduced heart rate, rather than secondary, so that pacing at a rate higher than the natural cardiac rate during sleep will prevent sleep 1apnea. >
Claims:
...pacing pulses;circuitry connected to the sensor that is operative to detect a potential sleep apnea condition based on the signals and that is responsive to detection of a potential sleep apnea condition to control the one or more pulse generators to pace the heart at a sleep apnea prevention rate.

...

...a resting condition or a sleep condition; andgenerating cardiac pacing pulses at a sleep apnea prevention rate in response to detection of one of the resting condition or the sleep condition.

13/3,K/10 (Item 10 from file: 350)

DIALOG(R)File 350:Derwent WPIX

0013584145 - Drawing available
WPI ACC NO: 2003-678835/200364
Related WPI Acc No: 2003-678838
XRPX Acc No: N2003-541959
Implantable cardiac stimulation device for treating sleep apnea , has circuitry responding to detection of potential sleep apnea condition to control pulse generators according to sleep apnea prevention pacing mode
Patent Assignee: BORNZIN G A (BORN-I); KOH S (KOHS-I); PACESETTER INC (PACE-N); PARK E (PARK-I)
Inventor: BORNZIN G A; KOH S ; PARK E
Patent Family (2 patents, 1 countries)

Patent			Application			
Number	Kind	Date	Number	Kind	Date	Update
US 20030153953	A1	20030814	US 200277048	A	20020214	200364 B
US 6928324	B2	20050809	US 200277048	A	20020214	200552 E

Priority Applications (no., kind, date): US 200277048 A 20020214

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
US 20030153953	A1	EN	27	11	

Implantable cardiac stimulation device for treating sleep apnea , has circuitry responding to detection of potential sleep apnea condition to control pulse generators according to sleep apnea prevention pacing mode

Original Titles:
Stimulation device for sleep apnea prevention, detection and treatment...

...Stimulation device for sleep apnea prevention, detection and treatment
...Inventor: KOH S

Alerting Abstract ...circuitry processes the signals from the sensors and responds to detection of a potential sleep apnea condition. The circuitry controls pulse generators (104) that generate cardiac pacing pulses according to a sleep apnea prevention pacing mode....USE - Used for treating sleep apnea .
...

...ADVANTAGE - The stimulation device elevates the pacing rate to prevent or terminate sleep apnea by increasing the cardiac output. Increased cardiac output increases blood oxygen concentration while decreasing carbon

Title Terms.../Index Terms/Additional Words: APNOEA ;

Original Publication Data by Authority

Inventor name & address:
... Koh, Steve ...

... Koh, Steve
Original Abstracts:
...metabolic demand and physical activity parameters. The timed cardiac

pacing pulses can prevent a sleep apnea condition.

...

...metabolic demand and physical activity parameters. The timed cardiac pacing pulses can prevent a sleep apnea condition.

Claims:

...that is operative to process signals from the respective sensors to detect a potential sleep apnea condition; andone or more pulse generators that are capable of generating cardiac pacing pulses , wherein the circuitry is responsive to detection of a potential sleep apnea condition to control the one or more pulse generators according to a sleep apnea prevention pacing mode .

...

...and that is operative to process signals from the respective sensors to detect a sleep apnea condition;one or more pulse generators that are capable of generating cardiac pacing pulses, wherein the circuitry is responsive to the detected sleep apnea condition to control the one or more pulse generators to generate cardiac pulses with a timing that tends to terminate the detected sleep apnea condition; anda neurostimulator coupled to respiratory muscles of the body's upper airways or diaphragm, the neurostimulator being adapted to generate neurostimulation pulses for terminating the detected sleep apnea condition if the generated cardiac pacing pulses fail to terminate the detected sleep apnea condition.

?

NonPatent Literature Abstracts

File 155:MEDLINE(R) 1950-2007/Nov 30
(c) format only 2007 Dialog
File 73:EMBASE 1974-2008/Jan 03
(c) 2008 Elsevier B.V.
File 5:Biosis Previews(R) 1926-2008/Dec W5
(c) 2008 The Thomson Corporation
File 144:Pascal 1973-2007/Dec W2
(c) 2007 INIST/CNRS
File 34:SciSearch(R) Cited Ref Sci 1990-2007/Dec W5
(c) 2007 The Thomson Corp
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
(c) 2006 The Thomson Corp
File 35:Dissertation Abs Online 1861-2007/Oct
(c) 2007 ProQuest Info&Learning
File 65:Inside Conferences 1993-2008/Jan 04
(c) 2008 BLDSC all rts. reserv.
File 45:EMCare 2007/Dec W1
(c) 2007 Elsevier B.V.
File 23:CSA Technology Research Database 1963-2008/Dec
(c) 2008 CSA.

Set	Items	Description
S1	114768	APNEA OR APNEIC OR APNOEA OR APNEIN OR APNOIA OR APNOEIC OR HYPOAPNE??? OR HYPERAPNE???
S2	7693	S1(3N)(TRACK??? OR MONITOR??? OR MEASUR??? OR MEASUREMENT? ? OR COUNT??? OR ASSESS? OR EVALUAT? OR JUDG? OR ESTIMAT? OR - CALCULAT??? OR COMPUT??? OR SURVEY??? OR CHECK??? OR NUMERAT?- ?? OR ENUMERAT??? OR CAPTUR??? OR RECORD???)
S3	67834	HISTOGRAM? OR (BAR OR GANTT)()(GRAPH? OR CHART?)
S4	7387528	CENTROID OR MEAN OR MODE OR AVERAGE OR MEDIAN OR NORM OR N- ORMED OR MEDIAL
S5	11214423	BATCH?? OR BLOCK OR BLOC OR COLLECTION OR ENSEMBLE OR GROU- P? OR CLUSTER? OR BUNDL? OR COLLECTIV? OR MERGED OR COMMUNAL? OR PLURALITY
S6	13	S2 AND S3
S7	8	RD (unique items)
S8	6	S7 NOT PY=2004:2008
S9	778	S2 AND S4 AND S5
S10	260458	S4(3N)S5
S11	89	S10 AND S2
S12	0	S10(5N)S2
S13	6	S2(15N)S10
S14	20	S2(25N)S10
S15	6	RD (unique items)
S16	6	S15 NOT S8
S17	4	S16 NOT PY=2004:2008
S18	4226	AU=(KOH, S? OR KOH S?)
S19	21	S1 AND S18
S20	13	RD (unique items)
S21	6	S20 NOT PY=2004:2007

?

8/3,K/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

14663348 PMID: 14733119
[Nocturnal pulse oximetry diagnosis for screening pediatric obstructive sleep apnea syndrome]
Saito Hideyuki; Yamashita Taku; Inagaki Koji; Habu Noboru; Araki Koji; Ozawa Hiroyuki; Mizutari Kunio
Department of Otorhinolaryngology, Saiseikai Utsunomiya Hospital, Utsunomiya.
Nippon Jibiinkoka Gakkai kaiho (Japan) Dec 2003, 106 (12) p1127-34, ISSN 0030-6622--Print Journal Code: 7505728
Publishing Model Print
Document type: English Abstract; Journal Article
Languages: JAPANESE
Main Citation Owner: NLM
Record type: MEDLINE; Completed

...sleep apnea and oral breathing and 163 children suspected of OSAS with snoring or sleep apnea . Subjects were measured for percutaneous oxygen saturation (SpO2) during sleep. Of those with suspected OSAS, 69 underwent adenotonsillectomy...

... 76 for TDD 95 were judged to be normal among the 163 with suspected OSAS. Histograms showed that the mode of each parameter was situated near the borderline. Comparison between pre...

8/3,K/2 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

0079151027 EMBASE No: 2002314795
Do the oscillations of cardiovascular parameters persist during voluntary apnea in humans?
Javorka M.; Zila I.; Javorka K.; Calkovska A.
Department of Physiology, Jessenius Medical Faculty, Comenius University, Mala Hora 4, 037 54 Martin, Slovakia
CORRESP. AUTHOR: Javorka M.
CORRESP. AUTHOR AFFIL: Department of Physiology, Jessenius Medical Faculty, Comenius University, Mala Hora 4, 037 54 Martin, Slovakia

Physiological Research (Physiol. Res.) (Czech Republic) September 17, 2002, 51/3 (227-238)
CODEN: PHRSE ISSN: 08628408
DOCUMENT TYPE: Journal; Article RECORD TYPE: Abstract
LANGUAGE: English SUMMARY LANGUAGE: English
NUMBER OF REFERENCES: 27

...diastolic blood pressure (DBP) during controlled breathing (CB) of atmospheric air and oxygen followed by apnea were recorded continuously. The cosine functions were then fitted by nonlinear regression analysis to the heart rate...
MEDICAL DESCRIPTORS:

adult; article; controlled study; diastolic blood pressure; female;
histogram ; human; human experiment; male; nonlinear regression analysis;
normal human; oscillation; oxygen breathing; RR interval; sex...

8/3,K/3 (Item 2 from file: 73)
DIALOG(R)File 73:EMBASE

0075497239 EMBASE No: 1993276795
Analysis of all night polysomnograms with a graphic spreadsheet program
Miller J.W.
Neurology/Neurological Surgery Dept., Washington Univ. School of
Medicine, Box 8111, 660 S. Euclid, St. Louis, MO 63110, United States
CORRESP. AUTHOR: Miller J.W.
CORRESP. AUTHOR AFFIL: Neurology/Neurological Surgery Dept., Washington
Univ. School of Medicine, Box 8111, 660 S. Euclid, St. Louis, MO 63110,
United States

American Journal of EEG Technology (AM. J. EEG TECHNOL.) (United States
) October 4, 1993, 33/3 (198-209)
CODEN: AJETA ISSN: 00029238
DOCUMENT TYPE: Journal; Article RECORD TYPE: Abstract
LANGUAGE: English SUMMARY LANGUAGE: English

...relationships between respiratory events and sleep stage and body
position. Multivariate analysis is used to evaluate sleep apnea
treatment with continuous positive airway pressure (CPAP), supplemental
oxygen, and tracheostomy. Whenever possible, results are presented as pie
or bar graphs or sleep histograms . These applications have been used
successfully with over 1,000 ANPSGs of all types.
MEDICAL DESCRIPTORS:
article; body position; breathing; calculation; histogram ; microcomputer;
oxygen therapy; positive end expiratory pressure; scoring system; sleep
apnea syndrome; sleep stage; tracheostomy

8/3,K/4 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

16720483 BIOSIS NO.: 200200313994
Passive apnea monitor
AUTHOR: Sullivan Patrick K (Reprint)
AUTHOR ADDRESS: Honolulu, HI, USA**USA
JOURNAL: Official Gazette of the United States Patent and Trademark Office
Patents 1257 (4): Apr. 23, 2002 2002
MEDIUM: e-file
PATENT NUMBER: US 6375621 PATENT DATE GRANTED: April 23, 2002 20020423
PATENT CLASSIFICATION: 600-484 PATENT ASSIGNEE: Ocean Laboratories, Inc.,
Honolulu, HI, USA PATENT COUNTRY: USA
ISSN: 0098-1133
DOCUMENT TYPE: Patent
RECORD TYPE: Abstract
LANGUAGE: English

Passive apnea monitor

...ABSTRACT: the acoustic and electromechanical signals of the patient and calculates an energy spectrum periodogram or histogram using time series analysis techniques. The patient lies down on a large piezoelectric film (few...
DESCRIPTORS:
METHODS & EQUIPMENT: passive apnea monitor --

8/3,K/5 (Item 1 from file: 144)
DIALOG(R)File 144:Pascal

14977137 PASCAL No.: 01-0130535
Deep inspiration breath hold to reduce irradiated heart volume in breast cancer patients
SIXEL Katharina E; AZNAR Marianne C; UNG Yee C
Toronto-Sunnybrook Regional Cancer Centre, Toronto, Ontario, Canada; University of Toronto, Toronto, Ontario, Canada
Journal: International journal of radiation oncology, biology, physics, 2001, 49 (1) 199-204
Language: English

... virtual simulation was performed for regular tangent and wide-tangent techniques. The resulting dose-volume histograms were calculated, and the volume of heart irradiated to 25 Gy or more was assessed...

... substantial cardiac volume in the treatment field during normal respiration showed a significant dose-volume histogram reduction when deep inspiration was applied, with decreases in the heart volume receiving 25 Gy...

English Descriptors: Malignant tumor; Mammary gland; Female; Human; Radioprotection; Heart; Technique; Forced inspiration; Apnea ; Evaluation ; Treatment efficiency; Dosimetry; Computerized axial tomography

8/3,K/6 (Item 1 from file: 45)
DIALOG(R)File 45:EMCare

01157108 EMCare No: 35276933
Assessing heart rate variability from real-world Holter reports
Stein P.K.
Dr. P.K. Stein, Washington Univ. School of Medicine, Heart Rate Variability Laboratory, Cardiovascular Division, 4625 Lindell Blvd, St. Louis, MO 63108 United States
AUTHOR EMAIL: pstein@im.wustl.edu
Cardiac Electrophysiology Review (CARD. ELECTROPHYSIOL. REV.) (Netherlands) 2002, 6/3 (239-244)
CODEN: CELRF ISSN: 1385-2264
DOCUMENT TYPE: Journal ; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 14
RECORD TYPE: Abstract

...heart rates, assessing circadian HRV from hourly average heart rates, and assessing HRV from the histogram of R-R intervals and from the plot of R-R intervals or heart rate...
DESCRIPTORS:
heart infarction; heart rate; mortality; histogram ; congestive heart failure; computer program; sleep apnea syndrome; hospital patient; patient; analytical error; circadian rhythm; RR interval; computer graphics ; Holter monitoring; sensitivity...
?

17/3,K/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

14259823 PMID: 12684303
Home overnight pulse oximetry in patients with COPD: more than one recording may be needed.
Lewis Christopher A; Eaton Tam E; Fergusson Wendy; Whyte Kenneth F; Garrett Jeffrey E; Kolbe John
Respiratory Services, Green Lane Hospital, Auckland, New Zealand. clewis@adhb.govt.nz
Chest (United States) Apr 2003, 123 (4) p1127-33, ISSN 0012-3692--Print Journal Code: 0231335
Publishing Model Print
Document type: Journal Article; Research Support, Non-U.S. Gov't
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

... 3 mm Hg [SD, 9.8]). Patients with asthma or clinical evidence of obstructive sleep apnea were excluded. MEASUREMENTS AND RESULTS: Mean nocturnal saturation (MNS) and time spent with saturation below 90% (TB90%) were calculated for N1, N2, and N3. Group mean recording length, MNS, and TB90% were similar for each night. Little variation in MNS was...

17/3,K/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

13065187 PMID: 11146705
Sleep disturbance and obesity: changes following surgically induced weight loss.
Dixon J B; Schachter L M; O'Brien P E
Department of Surgery, Monash University-Alfred Hospital, Melbourne 3181, Victoria, Australia. john.dixon@med.monash.edu.au
Archives of internal medicine (UNITED STATES) Jan 8 2001, 161 (1) p102-6, ISSN 0003-9926--Print Journal Code: 0372440
Publishing Model Print
Document type: Journal Article; Research Support, Non-U.S. Gov't

Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

... men, but daytime sleepiness was not affected by sex. Waist circumference was the best clinical measure predicting observed sleep apnea (R = 0.36; P<.001). The group lost an average of 48% (SD, 16%) of excess weight by 12 months. There was a significant improvement...

17/3,K/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

10054560 PMID: 8191203
Quality adjusted life years added by treatment of obstructive sleep apnea.
Tousignant P; Cosio M G; Levy R D; Groome P A
Clinical Epidemiology Division, Royal Victoria Hospital, McGill University, Montreal, Canada.
Sleep (UNITED STATES) Feb 1994, 17 (1) p52-60, ISSN 0161-8105--Print Journal Code: 7809084
Publishing Model Print
Document type: Journal Article; Research Support, Non-U.S. Gov't
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

...positive airway pressure (nCPAP) on the quality of life of 19 patients with obstructive sleep apnea (OSA). We measured the utility for the patients' health states before and with treatment using the standard gamble approach. The study group had an average age of 57 years and had been on treatment for a mean of 9.5...

17/3,K/4 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

09271882 Genuine Article#: 387LN No. References: 23
Title: Sleep disturbance and obesity - Changes following surgically induced weigh loss
Author(s): Dixon JB (REPRINT) ; Shachter LM; O'Brien PE
Corporate Source: Monash Univ,Alfred Hosp, Dept Surg,Melbourne/Vic 3181/Australia/ (REPRINT); Monash Univ,Alfred Hosp, Dept Surg,Melbourne/Vic 3181/Australia/; Austin & Repatriat Med Ctr,Dept Resp Med,Melbourne/Vic/Australia/
Journal: ARCHIVES OF INTERNAL MEDICINE, 2001, V161, N1 (JAN 8), P102-106
ISSN: 0003-9926 Publication date: 20010108
Publisher: AMER MEDICAL ASSOC, 515 N STATE ST, CHICAGO, IL 60610 USA
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

...Abstract: men, but daytime sleepiness was not affected by sex. Waist circumference was the best clinical measure predicting observed sleep apnea (R=0.36; P<.001). The group lost an average of 48% (SD, 16%) of excess weight by 12 months. There was a significant improvement

...
?

21/3,K/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

12612880 PMID: 10669203
Sleep apnea treatment improves seizure control in children with neurodevelopmental disorders.
Koh S ; Ward S L; Lin M; Chen L S
Division of Neurology, University of Southern California, Los Angeles, USA.
Pediatric neurology (UNITED STATES) Jan 2000, 22 (1) p36-9, ISSN 0887-8994--Print Journal Code: 8508183
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Sleep apnea treatment improves seizure control in children with neurodevelopmental disorders.
Koh S ; Ward S L; Lin M; Chen L S
Seizure disorder and sleep apnea are common chronic disorders in children, but the relationship between sleep apnea and seizure control has not been studied in the pediatric population. This retrospective review included nine children with neurodevelopmental disorders who had well-documented sleep apneic episodes and seizure disorders. Seizure frequency was reduced in five patients (56%) in the first 12 months after sleep apnea treatment without changes in their antiepileptic medications. Sleep apnea can be one of the seizure precipitants in children with epilepsy. This study indicates the importance of identifying sleep apnea when treating children with intractable epilepsy, particularly in those who are at high risk.
Descriptors: *Developmental Disabilities--complications--CO; *Epilepsy --complications--CO; *Sleep Apnea Syndromes--surgery--SU...; drug therapy --DT; Humans; Infant; Retrospective Studies; Seizures--complications--CO; Seizures--drug therapy--DT; Sleep Apnea Syndromes--complications--CO

21/3,K/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

12248075 PMID: 10825890
Dentistry's role in the management of obstructive sleep apnea .
Senlamai W; Bebermeyer R; Koh S
Department of Restorative Dentistry and Biomaterials, University of Texas Houston Health Sciences Center, USA.
Journal of the Greater Houston Dental Society (UNITED STATES) Nov 1999, 71 (4) p29-30, ISSN 1062-0265--Print Journal Code: 8917480
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM

Record type: MEDLINE; Completed

Dentistry's role in the management of obstructive sleep apnea .
Senlamai W; Bebermeyer R; Koh S
Descriptors: *Sleep Apnea , Obstructive--therapy--TH; Humans; Occlusal Splints; Orthodontic Appliances; Sleep Apnea , Obstructive--diagnosis--DI

21/3,K/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

10931331 PMID: 8727529
Ventilatory dynamics during transient arousal from NREM sleep: implications for respiratory control stability.
Khoo M C; Koh S S ; Shin J J; Westbrook P R; Berry R B
Biomedical Engineering Department, University of Southern California, Los Angeles 90089-1451, USA.
Journal of applied physiology (Bethesda, Md. - 1985) (UNITED STATES) May 1996, 80 (5) p1475-84, ISSN 8750-7587--Print Journal Code: 8502536
Contract/Grant No.: HL-02536; HL; NHLBI; RR-01861; RR; NCRR
Publishing Model Print
Document type: Journal Article; Research Support, Non-U.S. Gov't; Research Support, U.S. Gov't, P.H.S.
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Khoo M C; Koh S S ; Shin J J; Westbrook P R; Berry R B
... drive to breathe. Computer model simulations comparing different VRA time courses show that sustained periodic apnea is more likely to occur when the fall in the postarousal increase in ventilation is...

21/3,K/4 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

14265738 BIOSIS NO.: 199800059985
Treatment of obstructive sleep apnea improves seizure control in children with intractable epilepsy
AUTHOR: Koh Susan ; Ward Sally; Mitchell Wendy; Chen Lan S
AUTHOR ADDRESS: Div. Pulmonary, Child. Hosp. Los Angeles, Univ. S. Calif., Los Angeles, CA, USA**USA
JOURNAL: Epilepsia 38 (SUPPL. 8): p183 1997 1997
MEDIUM: print
CONFERENCE/MEETING: Annual Meeting of the American Epilepsy Society Boston, Massachusetts, USA December 7-10, 1997; 19971207
SPONSOR: American Epilepsy Society
ISSN: 0013-9580
DOCUMENT TYPE: Meeting; Meeting Abstract; Meeting Poster
RECORD TYPE: Citation
LANGUAGE: English

Treatment of obstructive sleep apnea improves seizure control in children

with intractable epilepsy
AUTHOR: Koh Susan ...
DESCRIPTORS:
...DISEASES: obstructive sleep apnea --
...MESH TERMS: Sleep Apnea , Obstructive (MeSH)

21/3,K/5 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

13118127 BIOSIS NO.: 199698585960
Respiration modulates human ventricular repolarization
AUTHOR: Koh Steve W ; Gallik Donna M; Sager Philip T
AUTHOR ADDRESS: West LA VAMC/UCLA, Los Angeles, CA, USA**USA
JOURNAL: Circulation 92 (8 SUPPL.): pI728 1995 1995
CONFERENCE/MEETING: 68th Scientific Session of the American Heart Association Anaheim, California, USA November 13-16, 1995; 19951113
ISSN: 0009-7322
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Citation
LANGUAGE: English

AUTHOR: Koh Steve W ...
DESCRIPTORS:
MISCELLANEOUS TERMS: APNEA ;

21/3,K/6 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

00619113 Genuine Article#: EG151 No. References: 16
Title: EFFECT OF HALOTHANE ON HYPOXIC AND HYPERCAPNIC VENTILATORY RESPONSES
OF GOATS
Author(s): KOH SO ; SEVERINGHAUS JW
Corporate Source: UNIV CALIF SAN FRANCISCO,DEPT ANESTHESIA,1386 HSE,BOX 0542/SAN FRANCISCO//CA/94143; UNIV CALIF SAN FRANCISCO,DEPT ANESTHESIA,1386 HSE,BOX 0542/SAN FRANCISCO//CA/94143; UNIV CALIF SAN FRANCISCO,CARDIOVASC RES INST/SAN FRANCISCO//CA/94143
Journal: BRITISH JOURNAL OF ANAESTHESIA, 1990, V65, N5, P713-717
Language: ENGLISH Document Type: ARTICLE

Author(s): KOH SO ; SEVERINGHAUS JW
Research Fronts: 88-2785 001 (OBSTRUCTIVE SLEEP- APNEA ; BREATHING PATTERN; OBESE HYPOVENTILATION SYNDROME OF EARLY-CHILDHOOD REQUIRING VENTILATORY SUPPORT)
?

NonPatent Literature Fulltext

File 9:Business & Industry(R) Jul/1994-2007/Dec 20
(c) 2007 The Gale Group
File 16:Gale Group PROMT(R) 1990-2008/Dec 26
(c) 2008 The Gale Group
File 160:Gale Group PROMT(R) 1972-1989
(c) 1999 The Gale Group
File 148:Gale Group Trade & Industry DB 1976-2008/Dec 24
(c)2008 The Gale Group
File 621:Gale Group New Prod.Annou.(R) 1985-2008/Dec 21
(c) 2008 The Gale Group
File 441:ESPICOM Pharm&Med DEVICE NEWS 2008/May W1
(c) 2008 ESPICOM Bus.Intell.
File 149:TGG Health&Wellness DB(SM) 1976-2007/Dec W2
(c) 2007 The Gale Group
File 15:ABI/Inform(R) 1971-2008/Jan 03
(c) 2008 ProQuest Info&Learning
File 624:McGraw-Hill Publications 1985-2008/Jan 04
(c) 2008 McGraw-Hill Co. Inc
File 635:Business Dateline(R) 1985-2008/Jan 03
(c) 2008 ProQuest Info&Learning
File 636:Gale Group Newsletter DB(TM) 1987-2008/Dec 28
(c) 2008 The Gale Group
File 135:NewsRx Weekly Reports 1995-2007/Dec W5
(c) 2007 NewsRx
File 98:General Sci Abs 1984-2007/Dec
(c) 2007 The HW Wilson Co.

Set	Items	Description
S1	13935	APNEA OR APNEIC OR APNOEA OR APNEIN OR APNOIA OR APNOEIC OR HYPOAPNE??? OR HYPERAPNE???
S2	1729	S1(3N)(TRACK??? OR MONITOR??? OR MEASUR??? OR MEASUREMENT? ? OR COUNT??? OR ASSESS? OR EVALUAT? OR JUDG? OR ESTIMAT? OR - CALCULAT??? OR COMPUT??? OR SURVEY??? OR CHECK??? OR NUMERAT?- ?? OR ENUMERAT??? OR CAPTUR??? OR RECORD???)
S3	65708	HISTOGRAM? OR (BAR OR GANTT)()(GRAPH? OR CHART?)
S4	5613439	CENTROID OR MEAN OR MODE OR AVERAGE OR MEDIAN OR NORM OR N- ORMED OR MEDIAL
S5	13652308	BATCH?? OR BLOCK OR BLOC OR COLLECTION OR ENSEMBLE OR GROU- P? OR CLUSTER? OR BUNDL? OR COLLECTIV? OR MERGED OR COMMUNAL? OR PLURALITY
S6	0	S2(100N)S3
S7	9	S1(100N)S3
S8	8	RD (unique items)
S9	2	S8 NOT PY=2004:2008
S10	160	S2(100N)S4
S11	63	S10(100N)S5
S12	119	S2(50N)S4
S13	44	S12(50N)S5
S14	31	RD (unique items)
S15	62	S2(25N)S4
S16	17	S15(25N)S5
S17	11	RD (unique items)
S18	11	S17 NOT S9

S19 5 S18 NOT PY=2004:2008
?

9/3,K/1 (Item 1 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)

02921762 SUPPLIER NUMBER: 79381327 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Sleep Histories Are Seldom Documented on a General Medical Service.
NAMEN, ANDREW M.; LANDRY, SCOTT H.; CASE, L. DOUGLAS; McCALL, W. VAUGHN; DUNAGAN, DONNIE P.; HAPONIK, EDWARD F.
Southern Medical Journal, 94, 9, 874
Sept,
2001
PUBLICATION FORMAT: Magazine/Journal ISSN: 0038-4348 LANGUAGE: English
RECORD TYPE: Fulltext TARGET AUDIENCE: Professional
WORD COUNT: 3768 LINE COUNT: 00357

... P = 0.002

(+)P (less than) 0.001

(++)P = 0.01

Note: Table made from bar graph
FIGURE 2

Frequency with which sleep histories were taken in patients with conditions associated with obstructive sleep apnea
. (HO = House officer)

	% with a condition associated with OSA	Sleep Hx
Medical Students	72%	(*) 15...

...5%
HO's 3 68% (*) 8%

(*)P(less than)0.001

Note: Table made from bar graph

9/3,K/2 (Item 2 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)

02151976 SUPPLIER NUMBER: 96738672 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Automated detection and elimination of periodic ECG artifacts in EEG using the energy interval histogram method.(Abstract)
Park, Hae-Jeong; Jeong, Do-Un; Park, Kwang-Suk
IEEE Transactions on Biomedical Engineering, 49, 12, 1526(10)
Dec,
2002
DOCUMENT TYPE: Abstract PUBLICATION FORMAT: Magazine/Journal; Refereed
ISSN: 0018-9294 LANGUAGE: English RECORD TYPE: Abstract

TARGET AUDIENCE: Academic; Professional; Trade

...AUTHOR ABSTRACT: applied to four whole-night sleep EEG recordings from four subjects with severe obstructive sleep apnea syndrome, from which a total of 132 878 heartbeats were monitored over 31.8 h...

...epochs where the elimination process is necessarily required.
Index Terms--Electrocardiogram (ECG) artifacts, energy interval histogram , ensemble average subtraction, nonlinear energy operator.
?

19/3,K/1 (Item 1 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)

07737859 Supplier Number: 63922835 (USE FORMAT 7 FOR FULLTEXT)
Sleep Apnea Symptoms Differ in Women vs. Men.(Brief Article)(Statistical Data Included)
ZOLER, MITCHEL L.
Family Practice News, v30, n12, p4
June 15, 2000
Language: English Record Type: Fulltext
Article Type: Brief Article; Statistical Data Included
Document Type: Magazine/Journal; Professional
Word Count: 566

... m.sup.2) and 18 women without PCOS who were closely matched with the first group for age and BMI.
In addition to the expected differences in serum testosterone levels between the groups , he found that the mean waist-to-hip ratio was significantly higher among the women with PCOS, compared with the women in the control group .
All the women were evaluated for sleep apnea using polysomnography and completed questionnaires to identify sleeping disorders. Women with PCOS had significantly higher...

19/3,K/2 (Item 2 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)

06677601 Supplier Number: 55898362 (USE FORMAT 7 FOR FULLTEXT)
Sleep Deprivation Shown to Have as Much Impact on Reaction Time as Alcohol.
Business Wire, p1702
Sept 29, 1999
Language: English Record Type: Fulltext
Document Type: Newswire; Trade
Word Count: 1056

... apnea patients. On all seven measures, their results were worse than those of the drinking group at a blood alcohol level of 0.057 percent. And on three measures , the apnea patients scored as badly or worse than the drinkers who were legally drunk. "That really stunned us," Powell said.
Taking one example, the average reaction time for the drinkers with a blood alcohol level of 0.057 percent was...

19/3,K/3 (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB

13061343 SUPPLIER NUMBER: 69709111 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Charcot-Marie-Tooth disease and sleep apnoea syndrome: a family study.
Dematteis, Maurice; Pepin, Jean-Louis; Jeanmart, Michel; Deschaux, Chrystele; Labarre-Vila, Annick; Levy, Patrick
Lancet, 357, 9252, 267
Jan 27, 2001
ISSN: 0099-5355 LANGUAGE: English RECORD TYPE: Fulltext; Abstract
WORD COUNT: 4814 LINE COUNT: 00476

... slightly reduced PaCO2 in those with CMT (p50.11). The only significant difference between the groups was in age, which was higher in the CMT group .

Predictors of sleep apnoea severity in CMT individuals

Age was correlated with sleep apnoea syndrome severity-- measured by mean nocturnal SaO2 (r520.77, p50.014) and time spent with SaO2 lower than 90% (r50...

19/3,K/4 (Item 1 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)

02932823 SUPPLIER NUMBER: 92037361 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Preterm twins: cobedding OK. (Journal Scan).(Brief Article)
Splete, Heidi
Pediatric News, 36, 9, 28(1)
Sept,
2002
DOCUMENT TYPE: Brief Article PUBLICATION FORMAT: Magazine/Journal ISSN: 0031-398X LANGUAGE: English RECORD TYPE: Fulltext TARGET AUDIENCE: Professional
WORD COUNT: 107 LINE COUNT: 00012

TEXT:

...said Dr. Suzanne M. Touch of Jefferson Medical College, Philadelphia, and her associates. A study group of 11 sets of preterm infants (mean gestational age 31.8 weeks) were placed on apnea monitors for 12 hours prior to cobedding and another 12 hours during cobedding (Clin. Pediatr. 41...

19/3,K/5 (Item 2 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)

02208788 SUPPLIER NUMBER: 102822643 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Effect of nCPAP on blood pressure in obstructive sleep apnea. (Tips from Other Journals).(nasal continuous positive airway pressure)(Author Abstract)

Sexton, Sumi M.
American Family Physician, 67, 11, 2404
June 1,
2003
DOCUMENT TYPE: Author Abstract PUBLICATION FORMAT: Magazine/Journal;
Refereed ISSN: 0002-838X LANGUAGE: English RECORD TYPE: Fulltext
TARGET AUDIENCE: Professional
WORD COUNT: 519 LINE COUNT: 00047

... change in medication were considered dropouts, and only 32 patients (16 in the effective treatment group and 16 in the subtherapeutic group) out of 118 completed the study. The primary measurement of the study was change in mean arterial blood pressure; the secondary measurements were changes in systolic and diastolic pressures; the tertiary measurements were the apnea -hypopnea index (AHI) and sleepiness.

The mean arterial blood pressure decreased about 10 mm Hg in the effective nCPAP group , while it increased in the subtherapeutic group . The diastolic and systolic blood pressures also significantly decreased in the effective group (approximately 10...

?